# TECHNICAL REVIEW DOCUMENT For RENEWAL TO OPERATING PERMIT 020PWE247

Public Service Company of Colorado – Yosemite Air Blend Plant Weld County Source ID 1230141

> Prepared by Jacqueline Joyce January - February 2013

Reviewed by:

Operating Permit Supervisor: Matt Burgett
Field Services Unit: Jennifer Mattox

# I. Purpose:

This document will establish the basis for decisions made regarding the applicable requirements, emission factors, monitoring plan and compliance status of emission units covered by the renewed operating permit proposed for this site. The current Operating Permit was issued on October 1, 2008. The expiration date for the permit is October 1, 2013. This document is designed for reference during the review of the proposed permit by the EPA, the public, and other interested parties. The conclusions made in this report are based on information provided in the renewal application submitted September 27, 2012, additional information submitted on February 25, 2013, previous inspection reports and various e-mail correspondence, as well as telephone conversations with the applicant. Please note that copies of the Technical Review Document for the original permit and any Technical Review Documents associated with subsequent modifications of the original Operating Permit may be found in the Division files as well as on the Division website at <a href="https://www.colorado.gov/cdphe/airTitleV">www.colorado.gov/cdphe/airTitleV</a>. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised construction permit.

#### II. Description of Source

This facility consists of six gas-fired air compressors used for compressed air natural gas blending, under Standard Industrial Classification 4922. In addition, the other significant emission units include a portable incinerator and two emergency generators.

The facility is located at 934 Weld County Road 19, Brighton, in Weld County. This facility is located in an area classified as attainment for all pollutants except ozone. It is classified as non-attainment for ozone and is part of the 8-hr Ozone Control Area as defined in Regulation No. 7, Section II.A.1.

There are no affected states within 50 miles of the plant. The following Federal Class I designated area is within 100 kilometers of the plant: Rocky Mountain National Park.

The summary of emissions that was presented in the Technical Review Document (TRD) for the original permit issuance has been modified to update actual emissions.

Potential to Emit (PTE), in tons/yr								
Emission Unit	PM/PM <sub>10</sub> /PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>X</sub>	СО	VOC	HAP		
E001	0.22	1.27E-02	10.4	18.4	7.0	2.3		
E002	0.22	1.27E-02	10.4	18.4	7.0	2.3		
E003	0.35	2.04E-02	16.7	29.5	11.1	3.6		
E004	0.35	2.04E-02	16.7	29.5	11.1	3.6		
E005	0.70	4.12E-02	34.3	57.1	11.4	7.4		
E006	1.09	6.42E-02	34.4	85.7	17.2	11.2		
Smart Ash Incinerator *	0.01		0.01	0.05	0.04			
Total	2.91	0.17	122.81	238.65	64.84	30.4		

<sup>\*</sup>Permitted emissions from the incinerator are well below the APEN de minimis level and therefore the emission limits are not included in the Title V permit. However, APENs and permits are required for all incinerators in accordance with Colorado Regulation No. 3, Part A, Section III.D.2 and Part B, Section II.D.6.

Potential to emit for the engines is based on permitted emission limits or permitted fuel consumption and emission factors from AP-42, Section 3.2 (dated 7/00), Table 3.2-2.

In the above table, the breakdown of HAP emissions by individual HAPs is provided on page 16 of this document. As discussed in the table footnotes on this page, HAP emissions are based on the maximum hourly heat input rate or horsepower, 8760 hrs/yr of operation and the highest emission factor from either AP-42, Section 3.2 (4-cycle lean burn engines) or GRI HAPCalc version 3.01 (4-stroke clean or lean burn, field gas or natural gas).

Actual emissions are typically less than potential emissions and are shown in the table below:

Actual Emissions, in tons/yr									
Emission	Data Year	PM/PM <sub>10</sub> /	SO <sub>2</sub>	NO <sub>X</sub>	CO	VOC	HAPS		
Unit		PM <sub>2.5</sub> *							
E001	2010	0.12	6.79E-03	5.30	9.30	3.60	0.77		
E002	2009	0.08	4.73E-03	3.73	6.57	2.51	0.54		
E003	2009	0.27	1.57E-02	12.37	21.78	8.34	1.78		
E004	2010	0.23	1.33E-02	10.43	18.40	7.10	1.53		
E005	2011	0.39	2.29E-02	18.80	31.70	6.30	2.65		
E006	2009	0.22	1.32E-02	7.22	17.83	3.61	1.50		
Total		1.30	7.66E-02	57.85	105.58	31.46	8.77		

<sup>\*</sup>PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions are based on AP-42 emission factors and actual fuel consumption reported on the APENs. Only filterable PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions were reported on the APENs.

# National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories

As indicated in the above table summarizing potential to emit, the facility is a major source for HAPS and may be subject to NESHAPs for specific source categories (hereafter, referred to as "MACT requirements"). The applicability of various MACT requirements were discussed to some extent in the technical review document prepared to support the second renewal of this permit (issued October 1, 2008). That discussion has been updated to reflect changes to the various MACT standards and the promulgation of any new standards that may apply.

# Natural Gas Transmission and Storage (NGTS) Facility MACT (40 CFR Part 63 Subpart HHH)

The provisions in 40 CFR Part 63 Subpart HHH apply to glycol dehydrators located at major sources of HAPs. Since there is no glycol dehydrator at this facility, the requirements in Subpart HHH do not apply.

#### Reciprocating Internal Combustion Engines (40 CFR Part 63 Subpart ZZZZ)

The reciprocating internal combustion engine (RICE) MACT was signed as final on February 26, 2004 and was published in the Federal Register on June 15, 2004. Under this rulemaking only RICE that were > 500 hp and located at major sources of HAPS were subject to the requirements. Subsequent revisions were made to the RICE MACT to address new engines  $\leq$  500 hp located at major sources and new engines of all sizes at area sources (final rule published January 18, 2008), existing compression ignition engines  $\leq$  500 hp at major sources and all sizes at area sources (final rule published March 3, 2010) and existing spark ignition engines  $\leq$  500 hp at major sources and all sizes at area sources (final rule published August 20, 2010). Revisions were made to

the RICE MACT on January 30, 2013. The January 30, 2013 revisions did not change the applicability requirements but did change the specific requirements for some engines (e.g. engines greater than 500 hp located at area sources of HAPs).

As discussed in the technical review document for the second renewal permit (issued October 1, 2008), Engines E001 thru E006 are existing (commenced construction prior to December 19, 2002) 4-stroke lean burn engines > 500 hp and are not required to meet the requirements in 40 CFR Part 63 Subparts A and ZZZZ, including the initial notification requirements (see § 63.6590(b)(3)(ii)).

There are two natural gas-fired emergency generators included in the insignificant activity list and both engines are site-rated at less than 500 hp. The renewal application indicates that there is also a natural-fired engine used to compress gas for tank loading and this engine is also less than 500 hp.

The emergency generators have been in the Title V permit since its initial issuance (September 1, 2003), therefore these engines are considered existing (commenced construction prior to June 12, 2006) and are subject to work practice requirements in MACT Subpart ZZZZ. The compliance date for these engines is October 19, 2013. The appropriate applicable requirements will be included in the renewal permit for these engines.

The renewal application includes information on the engine used to compress gas for tank loading and indicates that the engine was manufactured August 2007 and placed in service in 2009. This engine is site rated at less than or equal to 500 hp and as such is considered a new engine (commenced construction after June 12, 2006) in accordance with 63.6590(a)(2)(ii). The January 18, 2008 revisions to the MACT Subpart ZZZZ addressed new engines of any size located at area sources and new engines with a site rating of less than or equal to 500 hp located at major sources and generally specified that those engines met the requirements in MACT Subpart ZZZZ by meeting the requirements in either NSPS Subparts IIII or JJJJ, depending on the engine type. However, new 4-stroke lean burn engines with a site rating of 250 hp or more but less than or equal to 500 hp located at major sources of HAPs are subject to specific emission limitations under MACT Subpart ZZZZ, provided that the engine was manufactured on or after January 1, 2008 (see 63.6601). Since this engine is a new 4stroke lean burn engine with a site-rating of greater than or equal to 250 hp but less than or equal to 500 hp located at a major source of HAPs AND it was manufactured before January 1, 2008, this engine is NOT subject to any requirements under MACT Subpart ZZZZ.

#### Organic Liquid Distribution (Non-Gasoline) MACT (40 CFR Part 63 Subpart EEEE)

It does not appear that any organic liquids are generated or distributed at this facility. Nevertheless, under 40 CFR Part 63 Subpart EEE §§ 63.2334(c)(2), organic liquid distribution operations do not include activities and equipment at NGTS facilities; therefore, the organic liquid distribution MACT requirements do not apply.

## Boiler MACT for Major Sources (40 CFR Part 63 Subpart DDDDD)

EPA promulgated National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters on March 21, 2011 and later revised them on January 31, 2013. These requirements apply to boilers and process heaters that are located at major sources of HAPs and as such these requirements might apply. There is no de minimis level specified in the requirements and there is fuel-burning equipment identified in the insignificant activity list that is potentially subject to these requirements.

The fuel burning equipment included in the insignificant activity list includes a space heating boiler and a hot water heater. The definition of process heater in 63.7575, excludes units used for comfort heat or space heat. In addition, as indicated in 63.7491(d) hot water heaters are not subject to the requirements in Subpart DDDDD. Therefore these units are not subject to requirements of 40 CFR Part 63 Subpart DDDDD. In a February 25, 2013 email, the source indicated that they have no equipment at the facility that meets the definition of a boiler or process heater.

## New Source Performance Standards (NSPS)

EPA has promulgated NSPS requirements for new source categories since the issuance of the second renewal permit for this facility. NSPS requirements generally only apply to new or modified equipment and the Division is not aware of any modifications to existing equipment or additions of new equipment that would render equipment at this facility subject to NSPS requirements. However, because the recently promulgated NSPS requirements address equipment that may not be subject to APEN reporting or minor source construction permit requirements, the applicability of some of the newly promulgated requirements are being addressed here.

#### NSPS Subpart JJJJ – Stationary Spark Ignition Engines

NSPS Subpart JJJJ applies to stationary spark ignition engines that commenced construction, reconstruction or modification after June 12, 2006 and were manufactured after specified dates. The date the engine commenced construction is the date the engine was ordered by the owner/operator. The air compressor engines E001 through E006 commenced operation between 1987 and 2002 and while oxidation catalysts have been installed on these engines, the installation of a control device is not considered a modification as specified in 60.14(e)(5). As discussed under the RICE MACT, the emergency generators commenced construction (on-site construction) prior to June 12, 2006. The engine used to compress gas for tank loading did commence construction (i.e. was ordered) after June 12, 2006. However, the engine was manufactured prior to July 1, 2008. Therefore, the requirements in NSPS Subpart JJJJ do not apply to any of the engines at this facility.

NSPS Subpart IIII – Stationary Compression Ignition Engines

NSPS Subpart IIII applies to stationary compression ignition engines that commenced construction, reconstruction or modification after July 11, 2005 and were manufactured after specified dates. The date the engine commenced construction is the date the engine was ordered by the owner/operator. There are no compression ignition engines located at the Yosemite Air Blend Plant, therefore, the requirements in NSPS Subpart IIII do not apply.

# NSPS Subpart OOOO – Crude Oil and Natural Gas Production, Transmission and Distribution

The provisions in NSPS Subpart OOOO apply to several affected facilities at crude oil and natural gas production, transmission and distribution facilities that commenced construction, modification or reconstruction after August 23, 2011. The affected facilities under NSPS OOOO include gas wells, compressors (centrifugal and reciprocating), pneumatic controllers, storage vessels, equipment leaks associated with process units (i.e., equipment used to extract natural gas liquids from field gas) and sweetening units located at onshore natural gas processing plants. In the first case, the significant emission units at this facility commenced operation between 1987 and 2002 and secondly, it is not apparent that any equipment at the facility was constructed, reconstructed or modified after August 23, 2011; however, the Division has reviewed the potential applicability with respect to the individual affected facilities.

Gas wells are an affected facility under Subpart OOOO but there are no gas wells associated with this facility.

The pneumatic controllers and compressors are only affected facilities if they are located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. Since this facility is a part of the natural gas transmission and storage segment, any compressors or pneumatic controllers are not affected facilities, regardless of when they were constructed, reconstructed or modified.

Equipment associated with process units and sweetening units located at onshore natural gas processing plants are affected facilities under Subpart OOOO. There are no sweetening units at this facility. There are no natural gas processing plants associated with this facility.

Any storage vessels with VOC emissions greater than or equal to 6 tons/yr of VOC that commenced construction, reconstruction or modification after August 23, 2011 would be an affected facility and would be subject to the requirements in Subpart OOOO. There are a number of storage vessels included in the insignificant activity list in the current permit (issued October 1, 2008). The Division is not aware that any tanks have been constructed, reconstructed or modified after August 23, 2011, nor does the renewal application address any changes to the tanks listed in the insignificant activity list. Therefore it is unlikely that the tanks at this facility meet the applicability date (i.e. commenced construction, reconstruction or modification after August 23, 2011). In addition, it is unlikely that any tank at this facility would have emissions greater than or

equal to 6 tons/year of VOC. Therefore, the tanks at this facility are not affected facilities.

In summary, there are no Subpart OOOO affected facilities located at the Yosemite Air Blend Plant so the requirements in Subpart OOOO do not apply.

# <u>Colorado Regulation No. 7, Sections XII and XVIII – Requirements for Oil and Gas</u> Operations in the 8-hour Ozone Control Area

The applicability of the requirements in Section XII was discussed in the technical review document for the October 1, 2008 renewal permit beginning on page 11. The requirements in Section XII were revised somewhat since that revised permit was issued and the requirements in Section XVIII were added and so a discussion of these requirements is being included.

- Applicability and definitions (Sections XII.A and XII.B)
- Requirements for condensate collection, storing and handling (Section XII.C, D, E and F)

As noted in the technical review document for the October 1, 2008 renewal permit and in Section XII.A.1, these requirements apply to exploration and production operations, compressor stations or drip stations located upstream of a natural gas-processing plant. The Yosemite Blend facility transmits pipeline quality natural gas (i.e. gas that has been processed) to end users; therefore, the facility is located downstream of a natural gas processing plant. In addition, there are no condensate tanks at this facility.

Requirements for gas processing plants (Section XII.G)

As noted in the technical review document for the October 1, 2008 renewal permit, the Yosemite Blend facility is not a natural gas processing plant. There is no equipment at the facility that is used to extract natural gas liquids. Therefore, these provisions do not apply to the Yosemite Blend facility.

Glycol Dehydrators (Section XII.H)

There are no glycol dehydrators at the Yosemite Blend facility; therefore, these requirements do not apply.

The requirements in Section XVIII were adopted in December 2008 and apply to natural gas-actuated pneumatic controllers associated with natural gas operations in the 8-hour ozone control area or any ozone nonattainment or attainment maintenance area. These requirements specifically apply to pneumatic controllers located at or upstream of a natural gas processing plant. Note that Section XVIII specifically states that upstream activities include oil and gas exploration and production operations, natural gas compressor stations and/or natural gas drip stations. As previously stated, this facility is

located downstream of a natural gas processing plant, therefore, these requirements do not apply.

# Colorado Regulation No. 7, Section XVI - Requirements for Engines in the 8-Hour Ozone Control Area and Section XVII - Statewide Requirements for Oil and Gas Operations

The requirements in Section XVI were adopted in March 2004 and apply to the 8-hour ozone control area. The requirements in Section XVII were adopted in December 2006 and apply statewide. The requirements in Section XVI apply to natural gas fired engines. The requirements in Section XVII include requirements for condensate tanks, glycol dehydrators and natural gas fired engines.

#### Condensate tank and glycol dehydrator requirements

There are no condensate tanks or glycol dehydrators at this facility. Therefore, these requirements do not apply.

#### Engine requirements

The requirements in Regulation No. 7, Section XVI apply to engines located in the 8-hour ozone control area and sets control requirements for engines greater than 500 hp. This facility is located in the 8-hour ozone control area and these engines are all greater than 500 hp. The provisions in Section XVI specify that lean burn engines operating in the 8-hour ozone control area prior to June 1, 2004 must install oxidation catalysts by May 1, 2005. Oxidation catalysts were installed on engines E001 through E006 by May 1, 2005.

Reg 7 was revised in 2006 and 2008 to include control requirements for natural-gas fired engines state-wide. These requirements are found in Section XVII.E and apply to both new and existing engines. The requirements for existing engines apply to engines that were constructed or modified before February 1, 2009 and are greater than 500 hp. The requirements are similar to the requirements for engines over 500 hp located in the 8-hour ozone control area (Section XVI) and since engines E001 through E006 meet the requirements in Section XVII, they also meet the requirements in Section XVII.E.3.

The requirements for new engines depend on the date the engine commenced construction or relocation and the size of the engine. Engines E001 through E006 and the emergency generators are not new and therefore, the requirements for new engines in Section VIII.E.2 do not apply these engines. The engine used to compress gas for tank loading was installed at the facility in 2009 and qualifies as a new engine under Section XVII.E.2. However, Section XVII.E.1 specifies that engines with actual, uncontrolled emissions below the permitting thresholds in Regulation No. 3, Part B are exempt from the requirements for new and existing engines in Section XVII.E. As long as actual, uncontrolled emissions from the engine used to compress gas for tank loading are less than 5 tons/yr (the permit exempt level in Regulation No. 3, Part B,

Section II.1.c.(iii)), the engine is exempt from the requirements for new engines in XVII.E.2.

# Compliance Assurance Monitoring (CAM) Requirements

In the technical review document for the first renewal of this permit (issued October 1, 2008), the Division noted the following with respect to CAM.

Although the engines at this facility are equipped with a control device, the control device is not necessary to comply with the annual emission limitations. Therefore, CAM does not apply to the emission units at this facility.

The applicability of CAM to the equipment at this facility has not changed since the first renewal (issued October 1, 2008). CAM does not apply to any emission unit at this facility.

# **Repealed APEN Exemptions**

Since the first Title V renewal permit was processed (issued October 1, 2008) the following APEN exemptions were repealed: Produced water tanks (Reg 3, Part A, Section II.D.1.uu), Crude oil tanks < 40,000 gal (Reg 3, Part A, Section II.D.1.ddd), Engines – limited size and hours (Reg 3, Part A, Section II.D.1.sss) and Emergency Generators – limited size and hours (Reg 3, Part A, Section II.D.1.ttt). While the APEN exemptions have been repealed, the corresponding insignificant activity designations for the crude oil and produced water tanks were not repealed (Reg 3, Part C, Section II.E.3.uu and ddd, respectively) and there is an insignificant activity category for engines (Reg 3, Part C, Section II.E.3.nnn) but it is different than the previous insignificant activity categories for engines and emergency generators. Although the specific APEN exemptions have been repealed for crude oil tanks, produced water tanks and engines, these types of emission units are still exempt from APEN reporting requirements if actual, uncontrolled emissions are below the APEN de minimis level.

In the current Title V permit (renewal issued October 1, 2008), the insignificant activity list includes two emergency generators (no crude oil or produced water tanks are listed). In their renewal application submitted on September 27, 2012, the source indicated that actual, uncontrolled emissions from the emergency generators were below the APEN de minimis level of 1 ton/yr. Note that since the emergency generators are subject to requirements in 40 CFR Part 63 Subpart ZZZZ they can no longer be considered an insignificant activity, so they will be removed from the insignificant activity list and included in Section II of the permit.

# **Greenhouse Gas Emissions**

The potential-to-emit of greenhouse gas (GHG) emissions from this facility is less than 100,000 TPY CO<sub>2</sub>e. Future modifications greater than 100,000 TPY CO<sub>2</sub>e may be subject to regulation (Regulation No. 3, Part A, I.B.44).

#### III. Discussion of Modifications Made

#### **Source Requested Modifications**

The source's requested modifications were addressed as follows:

# September 27, 2012 Renewal Application

#### Page Following Cover Page

 Revised the Responsible Official, Responsible Official's Authorized Representative and the Permit Contact and the address under "issued to" as requested.

#### Section II, Condition 6.2

The source noted that the fuel use limit for engine E006 was incorrect. It appears that the Division inadvertently included the incorrect fuel limit for E006 in the previous renewal permit and that limit was corrected.

#### Insignificant Activity List – Appendix A

The source submitted an updated insignificant activity list. The updated list was included in Appendix A, except for the emergency generators and the solvent degreasers. The emergency generators are subject to requirements in 40 CFR Part 63 Subpart ZZZZ and the solvent degreasers are subject to requirements in Colorado Regulation No. 7, Section X and as a result these emission units can no longer be considered insignificant activities.

#### **Other Modifications**

In addition to the source requested modifications, the Division has included changes to make the permit more consistent with recently issued permits, include comments made by EPA on other Operating Permits, as well as correct errors or omissions identified during inspections and/or discrepancies identified during review of this renewal.

The Division has made the following revisions, based on recent internal permit processing decisions and EPA comments to the Yosemite Air Blend Plant Renewal Operating Permit. These changes are as follows:

#### Page Following Cover Page

 Monitoring and compliance periods and report and certification due dates are shown as examples. The appropriate monitoring and compliance periods and report and certification due dates will be filled in after permit issuance and will be based on permit issuance date. Note that the source may request to keep the same monitoring and compliance periods and report and certification due dates as were provided in the original permit. However, it should be noted that with this option, depending on the permit issuance date, the first monitoring period and compliance period may be short (i.e. less than 6 months and less than 1 year).

The address was revised under "issued to".

#### Section I – General Activities and Summary

- Revised the description in Condition 1.1 to correct the citation for the definition of the 8-hour ozone control area and to include the two emergency generators.
- Condition 1.4 was revised to remove Section IV, Condition 3.d as a state-only requirement, since EPA approved these provisions into Colorado's SIP effective October 6, 2008.
- The latest version of the AOS for temporary and permanent engine replacement was included in Condition 2.
- The following changes were made to the table in Condition 6.1:
  - Combined the emission unit no. and facility id columns.
  - The second column was labeled AIRS point number as that is more appropriate.
  - Added the oxidation catalysts to the "Pollution Control Device" column for engines E001 through E006. Under "description" of engines E001 through E006 included engine type (e.g. 4-cycle lean burn) and made other minor changes.
  - The emergency generators no longer qualify as insignificant activities and have been included in the table.
  - The cold cleaner solvent vats no longer qualify as insignificant activities and have been included in the table.
- Removed the second paragraph in Condition 3.1 (PSD language).

#### Section II.7 – Smart Ash Incinerator

As indicated in the permit and in the technical review document to support the October 1, 2008 renewal, this unit is subject to Colorado Regulation No. 1 and Regulation No. 6, Part B, Section VIII incinerator standards but the applicability of other incinerator requirements was not otherwise addressed. Although some incinerator requirements may clearly not apply, a discussion of the applicability to various incinerator rules to this unit follows:

40 CFR Part 60, Subpart E: Since the charge rate of this unit is less than 50 tons/hr, these requirements do not apply.

Municipal waste incinerator requirements (40 CFR Part 60, Subparts Cb, Ea, Eb, AAAA and BBBB and Colorado Regulation No. 6, Part B, Section VI): These requirements apply to incinerators that burn municipal waste. The smart ash incinerator is not subject to these requirements since it does not burn municipal waste.

Hospital/Medical/ Infectious waste incinerator requirements (40 CFR Part 60 Subparts Ce and Ec and Colorado Regulation No. 6, Part B, Section V): These requirements apply to incinerators that burn hospital/medical/infectious waste. The smart ash incinerator is not subject to these requirements since it does not burn hospital/medical/infectious waste.

Commercial and institutional solid waste incinerator requirements (40 CFR Part 60 Subparts CCCC and DDDD): The definition of cyclonic burn barrels burners in 40 CFR Part 60 §§ 60.2265 and 60.2875 indicate that these units are not incinerators, waste burning kilns, energy recovery units or small, remote incinerators and therefore are not subject to these requirements. The smart ash incinerator meets the definition of a cyclonic burn barrel.

Other solid waste incinerator requirements (40 CFR Part 60 Subparts EEEE and FFFF): These requirements apply to incinerators that burn either municipal or institutional waste. The smart ash incinerator does not burn either municipal or institutional waste.

# Section II.8 - Portable Monitoring

• The portable monitoring language was revised to the latest version.

#### Section II.9 – Insignificant Activities

Revised the language regarding estimating CO emissions from insignificant activities
to address equipment with the potential to emit CO that was not previously identified
(e.g. radiant heaters and engine used to compress gas for tank loading).

#### "New" Section II.10 – Emergency Generators

There are two engines included in the insignificant activity list that are considered insignificant under the provisions in Colorado Regulation No. 3, Part C, Section II.E.3.nnn (emergency generators). However, under the "catch-all" provisions in Regulation No. 3, Part C, Section II.E, sources that are subject to any federal or state applicable requirement, such as National Emission Standards for Hazardous Air Pollutants (NESHAPs), may not be considered insignificant activities. EPA promulgated National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines on August 20, 2010 which apply to these engines; therefore, they can no longer be considered insignificant activities. Although the units cannot be considered insignificant activities, since the Division has not adopted revisions to the RICE MACT promulgated after July 1, 2007, the engines are still exempt from APEN

reporting and minor source construction permit requirements, provided actual, uncontrolled emissions do not exceed the APEN de minimis level.

Engine descriptions are as follows:

South Emergency Generator (E008): Caterpillar, Model No. 3306SINA, rated at 145 hp and 5,500 Btu/hp-hr. Serial No. 07Y02653. Natural gas fired, 4-cycle lean burn engine.

North Emergency Generator (E009): Caterpillar, Model No. G3508LE rated at 487 hp and 5,500 Btu/hp-hr. Serial No. CTN00169. Natural gas-fired, 4-cycle lean burn engine.

The appropriate applicable requirements for these engines are as follows:

- Except as provided for below, visible emissions shall not exceed 20% opacity (Reg 1, Section II.A.1)
- Visible emissions shall not exceed 30% opacity, for a period or periods aggregating more than six (6) minutes in any sixty (60) minute period, during fire building, cleaning of fire boxes, soot blowing, start-up, process modifications, or adjustment or occasional cleaning of control equipment, when burning coal (Reg 1, Section II.A.4)
  - Based on engineering judgment, the Division believes that the operational activities of fire building, cleaning of fire boxes and soot blowing do not apply to engines. In addition, since these engines are not equipped with control equipment the operational activities of adjustment or occasional cleaning of control equipment also do not apply to the engines. Process modifications and startup may apply to engines, however, based on engineering judgment, the Division believes that such activities would be unlikely to occur for longer than six minutes. Therefore, the 30% opacity requirement has not been included in the operating permit.
- 40 CFR Part 63 Subpart ZZZZ requirements management practices (oil and filter change, inspect air cleaner and inspect hoses and belts)
- 40 CFR Part 63 Subpart A requirements

Since these engines are not subject to any emission limitations, monitoring requirements, notification and reporting requirements the requirements in §§ 63.7. 63.8, 63.9 and 63.10 do not apply. In addition, since these emission units are existing the requirements in § 63.5 (preconstruction review and notification requirements) do not apply. Finally, Table 8 of Subpart ZZZZ indicates that operation and maintenance requirements in 63.6(e) do not apply. Therefore, the permit will only include the prohibition and circumvention requirements in § 63.4.

Since these units are not subject to APEN reporting or minor source construction permit requirements, the permit will not include any requirements for calculating emissions.

## "New" Section II.11 - Cold Cleaner Solvent Vats

Solvent cold cleaners are included in the insignificant activity list in the current Title V permit. Colorado Regulation No. 7 was revised on December 12, 2008 (effective January 30, 2009) to cover all ozone nonattainment areas (previously Reg 7 applied to the Denver 1-hr ozone attainment maintenance area and to any non-attainment area for the 1-hr ozone standard) and as a result the requirements in Colorado Regulation No. 7, Section X apply to cold cleaner solvent vats. Although emissions from the solvent vats are below the APEN de minimis level and therefore exempt from both APEN reporting and construction permit requirements, under the "catch-all" provisions in Regulation No. 3, Part C, Section II.E (2<sup>nd</sup> paragraph) the solvent vats cannot be considered insignificant activities because they are subject to specific requirements in Regulation No. 7. Since the solvent vats cannot be considered insignificant activities, they will be included in the Operating Permit as significant emission units.

The applicable requirements from Regulation No. 7 for these units are as follows:

- Transfer and storage of waste solvent and used solvent (Reg 7, Sections X.A.3 and 4)
- Solvent Cold Cleaner Requirements (Reg 7, Section X.B)
  - Control Equipment covers, drainage, labeling and spray apparatus requirements (Reg 7, Section X.B.1)
  - o Operating Requirements (Reg 7, Section X.B.2)

#### Section II.3 - Permit Shield

As discussed previously, engines E001 through E006 are subject to requirements in Colorado Regulation No. 7, Section XVII.E.3 (statewide requirements for existing engines). These requirements are the same as the requirements in Colorado Regulation No. 7, Section XVI which are currently included in the permit. Therefore, the requirements in Section XVII.E.3 have been included in the table for streamlined conditions.

#### Section IV – General Conditions

- Revised the version date.
- The paragraph in Condition 3.d indicating that the requirements are state-only has been removed, since EPA approved these provisions into Colorado's SIP effective October 6, 2008.
- The title for Condition 6 was changed from "Emission Standards for Asbestos" to "Emission Controls for Asbestos" and in the text the phrase "emission standards for asbestos" was changed to "asbestos control".

• Condition 29 (VOC) was revised primarily to add the provisions in Reg 7, Section III.C as paragraph e although other minor language and format changes were made.

## **Appendices**

- The following changes were made to the insignificant activity list in Appendix A:
  - Added language to indicate those insignificant activity categories for which records should be available to verify insignificant activity status.
  - Revised the two emergency generators since they no longer qualify as insignificant activities.
- Revised the reports in Appendices B and C as follows:
  - Included the full company name (i.e., "Public Service Company of Colorado", rather than "Public Service Company").
  - Added the emergency generators to the tables.
- Changed the name of the Division contact for reports in Appendix D.

# **Maximum HAP Emissions from Engines (based on Published Emission Factors)**

Unit	HAP Emissions ( acetaldehyde	(tons/yr) Acrolein	benezene	toluene	ethylbenzene	Xylene	formaldehyde	n-hexane	2,2,4- trimethylpentane	methanol	total
E001	1.92E-01	1.23E-01	9.96E-02	1.87E-01		6.26E-02	1.49E-00	2.51E-02		8.95E-02	2.27
E002	1.92E-01	1.23E-01	9.96E-02	1.87E-01		6.26E-02	1.49E-00	2.51E-02		8.95E-02	2.27
E003	3.06E-01	1.96E-01	1.58E-01	2.98E-01		9.98E-02	2.38E-00	3.99E-02		1.43E-01	3.62
E004	3.06E-01	1.96E-01	1.58E-01	2.98E-01		9.98E-02	2.38E-00	3.99E-02		1.43E-01	3.62
E005	6.31E-01	4.05E-01	3.09E-01	6.15E-01		2.06E-01	4.92E-00	7.78E-02		2.94E-01	7.45
E006	9.46E-01	6.07E-01	4.76E-01	9.22E-01		3.09E-01	7.37E-00	1.20E-01		4.41E-01	11.19
Total	2.57	1.65	1.30	2.51	0.00	0.84	20.04	0.33	0.00	1.20	30.44

Engine emissions are based on most conservative emission factor from either AP-42 (4SLB), or GRI HAPCalc V 3.01 (4SLB or 4SCB) for each pollutant.